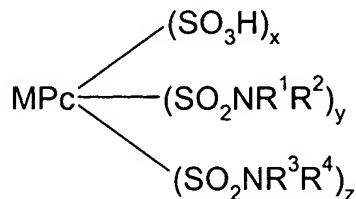




IN THE CLAIMS

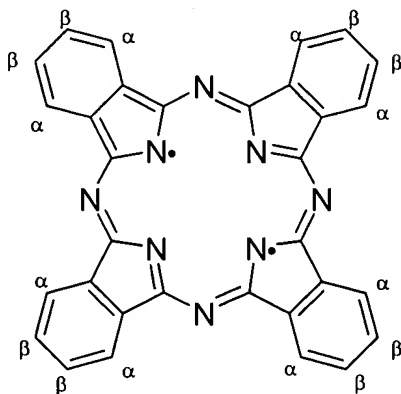
1. (currently amended): A composition comprising:  
(a) a major dye component which is a mixture of phthalocyanine dyes of Formula (1) and salts thereof:



Formula (1)

wherein:

M is Cu or Ni;  
Pc represents a phthalocyanine nucleus of formula;



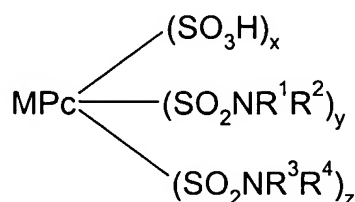
$\text{R}^1$  and  $\text{R}^2$  independently are H or optionally substituted ~~C<sub>1-4</sub>alkyl~~ methyl;  
 $\text{R}^3$  is H or optionally substituted hydrocarbyl; and  
 $\text{R}^4$  is optionally substituted hydrocarbyl; or  
 $\text{R}^3$  and  $\text{R}^4$  together with the nitrogen atom to which they are attached represent an optionally substituted aliphatic or aromatic ring system;  
 $x$  is 0.1 to 3.8;  
 $y$  is 0.1 to 3.8;  
 $z$  is 0.1 to 3.8;  
the sum of  $(x+y+z)$  is 4; and

the substituents, represented by x, y and z, are attached only to a  $\beta$ -position on the phthalocyanine ring; and

(b) a liquid medium which comprises water and an organic solvent or an organic solvent free from water.

2. (currently amended): A composition according to claim 1 comprising:

(a) a major dye component which is a mixture of phthalocyanine dyes of Formula (1) and salts thereof:

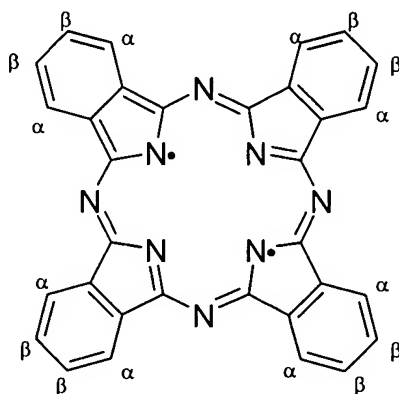


Formula (1)

wherein:

M is Cu or Ni;

Pc represents a phthalocyanine nucleus of formula;



$\text{R}^1$  and  $\text{R}^2$  independently are H or optionally substituted  $\text{C}_{1-4}$ alkyl methyl;

$\text{R}^3$  is H or optionally substituted hydrocarbyl; and

$\text{R}^4$  is optionally substituted hydrocarbyl; or

$\text{R}^3$  and  $\text{R}^4$  together with the nitrogen atom to which they are attached represent an optionally substituted aliphatic or aromatic ring system;

x is 0.1 to 3.8;

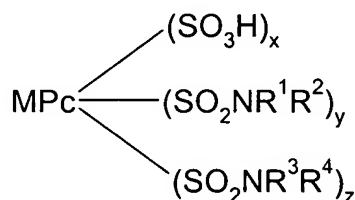
y is 0.1 to 3.8;

z is 0.1 to 3.8;

the sum of (x+y+z) is 4; and

the substituents, represented by x, y and z, are attached only to a  $\beta$ -position on the phthalocyanine ring and the mixture of phthalocyanine dyes of Formula (1) are obtainable by a process which comprises cyclisation of appropriate  $\beta$ -sulfo substituted phthalic acid, phthalonitrile, iminoisoindoline, phthalic anhydride, phthalimide or phthalamide optionally in the presence of a suitable nitrogen source (~~if required~~), a copper or nickel salt and a base followed by chlorination and then amination/amidation; and  
(b) a liquid medium which comprises water and an organic solvent or an organic solvent free from water.

3. (currently amended): A composition according to either claim 1 or claim 2 comprising:  
(a) a major dye component which is a mixture of phthalocyanine dyes of Formula (1) and salts thereof:

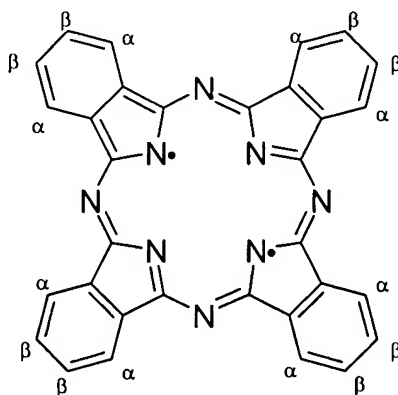


Formula (1)

wherein:

M is Cu or Ni;

Pc represents a phthalocyanine nucleus of formula;



$R^1$  and  $R^2$  independently are H or ~~optionally substituted C<sub>1-4</sub>alkyl~~ methyl;

$R^3$  is H or optionally substituted hydrocarbyl; and

$R^4$  is optionally substituted hydrocarbyl; or

$R^3$  and  $R^4$  together with the nitrogen atom to which they are attached represent an optionally substituted aliphatic or aromatic ring system;

x is 0.1 to 3.8;

y is 0.1 to 3.8;

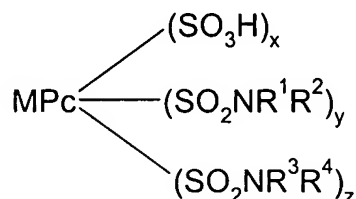
z is 0.1 to 3.8;

the sum of (x+y+z) is 4; and

the substituents, represented by x, y and z, are attached only to a  $\beta$ -position on the phthalocyanine ring and the mixture of phthalocyanine dyes of Formula (1) are obtainable by cyclisation of 4-sulfo-phthalic acid in the presence of a nitrogen source, a copper or nickel salt and a base to give phthalocyanine  $\beta$ -tetrasulfonic acid which is then chlorinated and the sulfonyl chloride groups so formed are reacted with compounds of formula  $\text{HNR}^1\text{R}^2$  and  $\text{HNR}^3\text{R}^4$  wherein  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are as hereinbefore defined; and  
(b) a liquid medium which comprises water and an organic solvent or an organic solvent free from water.

4. (currently amended): A composition according to claim 1 comprising:

(a) a mixture of phthalocyanine dyes of Formula (1) and salts thereof:



Formula (1)

wherein:

M is Cu or Ni;

Pc represents a phthalocyanine nucleus;

$R^1$  and  $R^2$  independently are H or ~~optionally substituted C<sub>1-4</sub>alkyl~~ methyl;

$R^3$  is H or methyl;

$R^4$  is optionally substituted hydrocarbyl; or

$R^3$  and  $R^4$  together with the nitrogen atom to which they are attached represent an optionally substituted aliphatic or aromatic ring system;

x is 0.1 to 3.8;

y is 0.1 to 3.8;

z is 0.1 to 3.8;

the sum of (x+y+z) is 4; and

the substituents, represented by x, y and z, are attached only to a  $\beta$ -position on the phthalocyanine ring and the mixture of phthalocyanine dyes of Formula (1) are obtainable by a process which comprises cyclisation of appropriate  $\beta$  substituted phthalic acid, phthalonitrile, iminoisoindoline, phthalic anhydride, phthalimide or phthalamide in the presence of a suitable copper or nickel salt followed by chlorination and then amination/amidation; and  
(b) a medium which comprises water and an organic solvent or an organic solvent free from water.

5. (previously presented): A composition according to claim 1 or claim 2 wherein M is Cu.

6. (previously presented): A composition according to claim 1 or claim 2 wherein x has a value of 0.5 to 3.5, y has a value of 0.5 to 3.5 and z has a value of 0.5 to 3.5.

7. (previously presented): A composition according to claim 1 or claim 2 wherein  $R^1$ ,  $R^2$  and  $R^3$  are independently H or methyl and  $R^4$  is optionally substituted aryl.

8. (previously presented): A composition according to claim 1 or claim 2 wherein  $R^4$  is phenyl bearing at least one sulfo, carboxy or phosphato substituent and having further optional substituents.

9. (previously presented): A composition according to claim 1 or claim 2 wherein  $R^4$  is phenyl bearing a single sulfo substituent.

10. (previously presented): A composition according to claim 1 or claim 2 wherein  $R^1$  and  $R^2$  independently are H or methyl and  $R^3$  and  $R^4$  together with the nitrogen atom to which they are attached represent an optionally substituted 3 to 8 membered aliphatic or aromatic ring:

11. (previously presented): A composition according to claim 1 or claim 2 wherein  $R^1$  and  $R^2$  independently are H or methyl,  $R^3$  is H or optionally substituted  $C_{1-8}$ alkyl and  $R^4$  is optionally substituted  $C_{1-8}$ alkyl.

12. (original): A composition according to claim 11 wherein  $R^1$  and  $R^2$  are H,  $R^3$  is H or  $C_{1-4}$ alkyl bearing at least one acid substituent selected from the group consisting of  $-SO_3H$ ,  $-COOH$  or  $-PO_3H_2$  and  $R^4$  is  $C_{1-4}$ alkyl bearing at least one acid substituent selected from the group consisting of  $-SO_3H$ ,  $-COOH$  or  $-PO_3H_2$ .
13. (previously presented): A composition according to claim 1 or claim 2 wherein  $R^1$  and  $R^2$  are H.
14. (currently amended): A composition according to claim 11 wherein  $R^1$ ,  $R^2$  and  $R^3$  are H, and  $R^4$  is  $-CH_2CH_2SO_3H$  and  $y$  is less than 4.
15. (original): A composition according to claim 11 wherein  $R^1$  is H,  $R^2$  is  $CH_3$ ,  $R^3$  is H and  $R^4$  is  $-CH_2CH_2SO_3H$ .
16. (original): A composition according to claim 11 wherein  $R^1$  and  $R^2$  are  $CH_3$ ,  $R^3$  is H and  $R^4$  is  $-CH_2CH_2SO_3H$ .
17. (previously presented): A composition according to claim 1 or claim 2 wherein at least 70% by weight of the total amount of phthalocyanine dye is of Formula (1).
18. (original): A composition according to claim 17 wherein at least 90% by weight of the total amount of phthalocyanine dye is of Formula (1).
19. (previously presented): A composition according to claim 1 or claim 2 wherein the dyes of Formula(1) are free from fibre reactive groups.
20. (currently amended): A composition according to ~~claim~~ claim 1 or claim 2 which comprises:  
(a) from 0.1 to 20 parts of compounds of Formula (1); and  
(b) from 80 to 99.9 parts of a liquid medium;  
wherein all parts are by weight and the number of parts of (a)+(b)=100.
21. (original): A composition according to claim 20 which comprises:  
(a) from 0.5 to 15 parts of compounds of Formula (1); and  
(b) from 85 to 99.5 parts of a liquid medium;  
wherein all parts are by weight and the number of parts of (a)+(b)=100.

22. (original): A composition according to claim 20 which comprises:

(a) from 1 to 5 parts of compounds of Formula (1); and

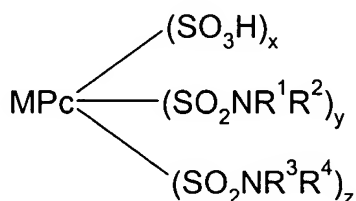
(b) from 95 to 99 parts of a liquid medium;

wherein all parts are by weight and the number of parts of (a)+(b)=100.

23. (previously presented): A composition according to claim 1 or claim 2 wherein the liquid media may contain additional components conventionally used in ink-jet printing inks.

24. (previously presented): A composition according to claim 1 or claim 2 which is an ink suitable for use in an ink-jet printer.

25. (currently amended): A mixture of dyes of Formula (4) and salts thereof:

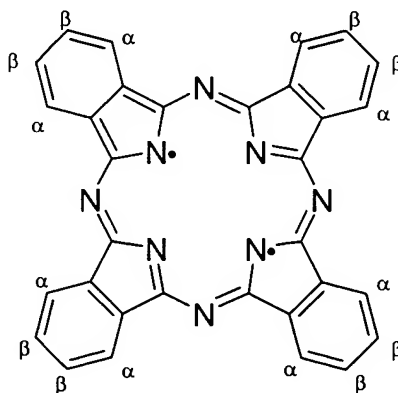


Formula (4)

wherein:

M is Cu or Ni;

Pc represents a phthalocyanine nucleus of formula;



$\text{R}^1$  and  $\text{R}^2$  independently are H or optionally substituted  $\text{C}_{1-4}$ alkyl methyl;

$\text{R}^3$  is H or optionally substituted  $\text{C}_{1-8}$ alkyl;

R<sup>4</sup> is optionally substituted C<sub>1-8</sub>alkyl or phenyl bearing at least one sulfo, carboxy or phosphato substituent and having further optional substituents other than amino or substituted amino; or

R<sup>3</sup> and R<sup>4</sup> together with the nitrogen atom to which they are attached represent an optionally substituted 5- or 6-membered aliphatic or aromatic ring;

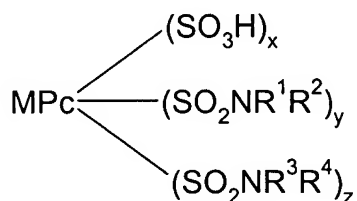
x is 0.1 to 3.8;

y is 0.1 to 3.8;

z is 0.1 to 3.8;

the sum of (x+y+z) is 4; and the substituents, represented by x, y and z, are attached only to a β-position on the phthalocyanine ring and provided that the mixture of dyes is free from fiber reactive groups.

26. (currently amended): A mixture of dyes according to claim 25 of Formula (4) and salts thereof:

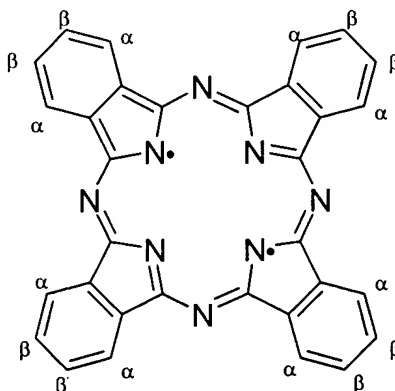


Formula (4)

wherein:

M is Cu or Ni;

Pc represents a phthalocyanine nucleus of formula;



R<sup>1</sup> and R<sup>2</sup> independently are H or ~~optionally substituted C<sub>1-4</sub>alkyl~~ methyl;

R<sup>3</sup> is H or optionally substituted C<sub>1-8</sub>alkyl;



$R^4$  is optionally substituted  $C_{1-8}$ alkyl or phenyl bearing at least one sulfo, carboxy or phosphato substituent and having further optional substituents other than amino or substituted amino; or

$R^3$  and  $R^4$  together with the nitrogen atom to which they are attached represent an optionally substituted 5- or 6-membered aliphatic or aromatic ring;

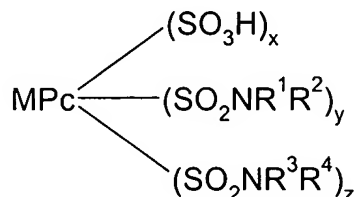
x is 0.1 to 3.8;

y is 0.1 to 3.8;

z is 0.1 to 3.8;

the sum of (x+y+z) is 4; and the substituents, represented by x, y and z, are attached only to a  $\beta$ -position on the phthalocyanine ring and the mixture of phthalocyanine dyes of Formula (1) are prepared by a process which comprises cyclisation of appropriate  $\beta$ -sulfo substituted phthalic acid, phthalonitrile, iminoisoindoline, phthalic anhydride, phthalimide or phthalamide optionally in the presence of a suitable nitrogen source (~~if required~~), a copper or nickel salt and a base followed by chlorination and then amination/amidation and provided that the mixture of dyes is free from fiber reactive groups.

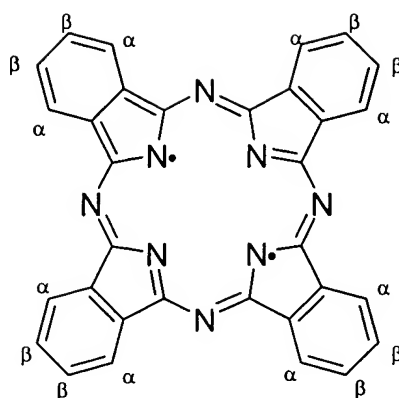
27. (currently amended): A mixture of dyes according to either claim 25 or claim 26 of Formula (2) and salts thereof:



Formula (2)

wherein:

M is Cu;  
Pc represents a phthalocyanine nucleus of formula;



$R^1$ ,  $R^2$  and  $R^3$  independently are H or methyl;

$R^4$  is phenyl bearing at least one sulfo, carboxy or phosphato substituent and having further optional substituents other than amino or substituted amino;

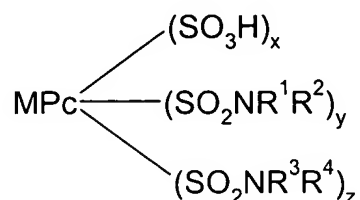
$x$  is 0.5 to 3.5;

$y$  is 0.5 to 3.5;

$z$  is 0.5 to 3.5;

the sum of ( $x+y+z$ ) is 4; and the substituents, represented by  $x$ ,  $y$  and  $z$ , are attached only to a  $\beta$ -position on the phthalocyanine ring and the mixture of phthalocyanine dyes of Formula (1) are prepared by a process which comprises cyclisation of appropriate  $\beta$ -sulfo substituted phthalic acid, phthalonitrile, iminoisoindoline, phthalic anhydride, phthalimide or phthalamide in the presence of a suitable nitrogen source (if required), a copper or nickel salt and a base followed by chlorination and then amination/amidation and provided that the mixture of dyes is free from fiber reactive groups.

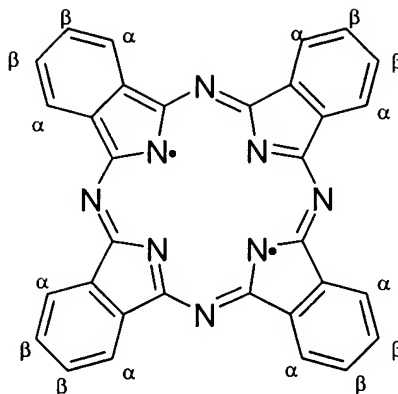
28. (original): A mixture of dyes according to either claim 25 or claim 26 of Formula (3) and salts thereof:



Formula (3)

wherein:

M is Cu;  
Pc represents a phthalocyanine nucleus of formula;



$R^1$  and  $R^2$  independently are H or methyl;

$R^3$  and  $R^4$  independently are  $C_{1-4}$ alkyl bearing at least one acid substituent, selected from the group consisting of  $-SO_3H$ ,  $-COOH$  or  $-PO_3H_2$ ;

x is 0.5 to 3.5;

y is 0.5 to 3.5;

z is 0.5 to 3.5;

the sum of (x+y+z) is 4; and the substituents, represented by x, y and z, are attached only to a  $\beta$ -position on the phthalocyanine ring and the mixture of phthalocyanine dyes of Formula (1) are prepared by a process which comprises cyclisation of appropriate  $\beta$ -sulfo substituted phthalic acid, phthalonitrile, iminoisoindoline, phthalic anhydride, phthalimide or phthalamide in the presence of a suitable nitrogen source (if required), a copper or nickel salt and a base followed by chlorination and then amination/amidation.

29. (previously presented): A mixture of dyes according to claim 25 or claim 26 wherein  $R^1$  and  $R^2$  are H.

30. (currently amended): A mixture of dyes according to either claim 25 or claim 26 wherein  $R^1$ ,  $R^2$  and  $R^3$  are H[,] and  $R^4$  is  $-CH_2CH_2SO_3H$  and ~~y is less than 4.~~

31. (original): A mixture of dyes according to either claim 25 or claim 26 wherein  $R^1$  is H,  $R^2$  is  $CH_3$ ,  $R^3$  is H and  $R^4$  is  $-CH_2CH_2SO_3H$ .

32. (original): A mixture of dyes according to either claim 25 or claim 26 wherein  $R^1$  and  $R^2$  are  $CH_3$ ,  $R^3$  is H and  $R^4$  is  $-CH_2CH_2SO_3H$ .

33. (currently amended): A mixture of dyes according to either claim 25 or claim 26 wherein  $R^1$  and  $R^2$  independently are H or methyl and  $R^3$  and  $R^4$  together with the nitrogen atom to which they are attached represent an optionally substituted ~~3 to 8~~ 5- or 6-membered aliphatic or aromatic ring.

34. (canceled)

35. (previously presented): A composition which comprises a major dye component which is a mixture of phthalocyanine dyes of Formula (4), as defined in claim 25 or claim 26, and water.

36. (original): A composition according to claim 35 which is an ink suitable for use in an ink-jet printer.

37. (original): A process for forming an image on a substrate comprising applying a composition according to claim 24 or claim 36 thereto by means of an ink-jet printer.

38. (previously presented): A material printed with a composition according to claim 1.

39. (previously presented): A material according to claim 38 which is a photograph printed using an ink-jet printer.

40. (original): An ink-jet printer cartridge comprising a chamber and an ink wherein the ink is in the chamber and the ink is according to claim 24 or claim 36.